

Sir,
Skin is prone to physical, chemical, mechanical and thermal injuries as it is the largest and the outermost organ covering the entire body surface area. Erythema ab igne (EAI) is a cutaneous reaction to heat environment. EAI is a classic example of environmental and occupational dermatosis. Recently, we encountered a case of EAI and share our experience with a brief review of the causes.

A 36-year-old woman from rural Karnataka (south India) presented with asymptomatic lesions over the legs since two months. On examination, reticulate hyperpigmented net-like pattern was observed on the lateral aspect of the right and medial aspect of the left leg [Figure 1]. Lesions were absent over the medial aspect of the right leg and lateral aspect of the left leg. She recalled history of prolonged exposure to heat while cooking in front of an earthen oven with a wood-burning fire on the ground since several years. She used to tie her sari higher up and below the knees was not covered by clothes, a practice often followed by rural Indian women while cooking to avoid soot and fire particles that could damage her clothing. History and clinical examination revealed the diagnosis of EAI.

EAI is caused by repeated and prolonged exposure to infrared radiation insufficient to produce a burn. The distribution of EAI depends on the occupation, source of heat, the direction of the incident radiation, skin

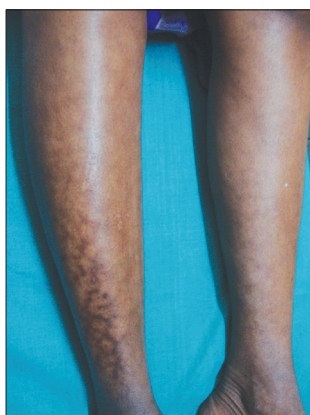


Figure 1: Reticulate, hyperpigmented and net-like distribution of lesions over the lateral aspect of the right and medial aspect of the left leg. Repeated heat exposure results in darkening of the reticulated bands

type and interposition of the clothing.^[1,2] It clinically presents as reticular, pigmented dermatoses, rarely may present as bullous lesions.^[3] It should be differentiated from vasculitis, livedo reticularis,^[1] port wine stain, cutis marmorata and poikiloderma. The most effective measure is immediate removal of the heat source and the lesions clear spontaneously in several weeks to months.^[4] Heat radiation may be due to repeated body-warming techniques like the use of Kangri by people from northern India,^[5] frequent hot bathing,^[6] hot water bottles, heating pads and cooking. Seasonal incidence of EAI occurs due to frequent exposure to heat radiation in order to avoid cold weather.^[7] Squamous cell carcinoma and other malignancies have been reported in longstanding cases.^[2,5] EAI in patients of internal malignancy has been reported.^[8] However, EAI is not a marker of internal malignancy and does not meet Curth's criteria. EAI poses an occupational hazard for silversmiths, jewelers, bakers and kitchen workers.^[2] Several cases of heat radiation from laptops^[9] and footbaths with Chinese herbal remedies^[10] causing EAI have been documented.

In India, there has been variable incidence of EAI.^[5] It is observed when the heat exposure results in cutaneous hyperthermia in the range of 43–47 degree celsius.^[9] Cooking in front an earthen oven by rural Indian women is common like our case as it is cheap and suits the earnings of the low socio-economic population. The practice of cooking in an earthen oven with wood began since the emergence of the Indus valley civilization, the oldest in the world. In rural India most women squat in front of a wood fire while cooking for long hours, tying the sari above the knee. Rural Indian women cook for their joint families and laborers who work in the agricultural field. It results in a long duration of heat radiation. This practice is in contrast to nuclear families in urban India. Prolonged exposure to heat, uncovering their legs while sitting on the ground with close proximity to the source of heat makes them vulnerable to EAI over the legs. Due to urbanization this practice in rural India has changed, however, it still continues in several regions and that explains the sporadic cases like ours. Strict avoidance to heat and covering the legs with clothing during cooking was advised. Lifestyle for better comfort has resulted in heat exposure from newer causes like

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footbath with Chinese herbal remedies,^[10] car heater, and laptops,^[5] and dermatologists should be aware of various causes, identify the source and advice their patients accordingly.

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